PETROCHEMICALS AND FERTILIZERS

Introduction

The Indonesian petrochemical industry is progressing slowly towards recovery after the late-1990s economic crisis. The industry has relied in the past on an abundant natural resources base of crude oil and natural gas and a large and growing market of more than 240 million people. It has been constrained by a lack of integration between the petroleum and petrochemical industries. The Asian economic crisis damaged the petrochemical industry. Many of the remaining companies have heavy debts. Furthermore, Indonesia's anemic investment climate significantly limits interest in this sector. In 2005, petrochemical producers also faced high prices for basic materials as a result of soaring global crude prices.

The sector players have called for for additional production capacity as growing demand and limited capacity have translated into increased imports of a number of key petrochemicals. They contend that the country is missing opportunities for job creation, foreign exchange revenues and a domestic buffer from international price changes. The industry got a boost as construction of the Tuban petrochemical project resumed in 2004. Once in operation, the complex will add to Indonesia's production capacity of paraxylenes, benzene and toluene.

In 2005, PT Petrokimia Nusantara Interindo (PENI), Indonesia's largest polyethylene producer was acquired by Malaysia's Titan Chemical Corp, an integrated petrochemical producer controlled by Malaysia's state-owned asset management company Permodalan Nasional Bhd. Japan's Marubeni Corporation also divested its shareholding in Chandra Asri Petrochemical Complex (CAPC) to Commerzbank International Trust Singapore in 2005. CAPC was one of the companies restructured as a result of the financial crisis. CAPC owed $463.6 million to the Indonesian Bank Restructuring Agency (IBRA) and $731 million to private lenders, led by Marubeni Cooperation of Japan. In 2002, Marubeni agreed to convert $147 million of its loans into a 24.59 percent equity share in CAPC. CAPC produces ethylene, propylene and polyethylene.

Tariff reduction postponed

The GOI had previously committed to reduce tariffs of petrochemical products to comply with the Common Effective Preferential Tariff (CEPT) and ASEAN Free Trade Agreement (AFTA) schemes. In 1998, the government lowered import tariffs on petrochemical products (ethylene, propylene, styrene, polyethylene, polypropylene, polystyrene and polyvinyl chloride) and their derivatives from 25-35 percent down to 10-20 percent, effective January 1, 1999.

Ministry of Finance Decree No. 187/2000 in May 2000 went a step further by reducing import tariffs for 708 items, including upstream and midstream petrochemical products. This decree lowered import duties on selected petrochemical products (ethylene, propylene, styrene, polyethylene, polypropylene, and their derivatives) as of June 1, 2000. In 2003 the GOI decided to postpone further reductions, however, saying that current rates already were quite low at a range between 0-10 percent.

Import Tariffs Selected Petrochemical Products (percent)

Products	Pre 1-Jan-99	1-Jan-99	1-Jun-00
Ethylene	25	10	0
Propylene	25	10	5
Polyethylene	35	20	5
Polypropylene	35	20	5
Polystyrene	25	20	10
Polyvinyl Chloride	35	20	10

Benzene & Paraxylene

Benzene and paraxylene are currently produced by Pertamina's Cilacap refinery with a production capacity of 123,000 tons per year and 270,000 tons per year, respectively. Production rates of the two products are insufficient to meet domestic demand, which must be met through imports. Compared to 2003, imports of Benzene and paraxylene in 2004 increased by 1.2 percent and 38 percent respectively to 301,500 tons and 778,200 tons. The country will increase its paraxlylene production by 500,000 tons once the Tuban Petrochemical's project comes online in 2006.

Pure Terephtalic Acid (PTA)

Since 1998, five PTA plants have been in operation -- Pertamina Plaju Aromatic, Bakrie Kazei PTA, Amoco Mitsui PTA Indonesia, Polysindo Eka Perkasa and Polyprima Karya Reksa, with a combined capacity of 1.98 million MT per year. PTA is produced from paraxylene and is used as raw material for polyester production in the textile industry. The growth of Indonesia's textile industry and the demand for polyester raw materials provided the stimulus for Pertamina and private investors to enter into PTA production. The bulk of production is sold to Indonesian polyester makers and for export purposes. In 2004 PTA production increased to 1.68 million tons from 1.58 million tons in 2003. In the last 5 years, PTA export has more than doubled from 244,800 tons in 2000 to 512,572 tons in 2004.

Three Japanese partners led by Mitsubishi Kasei Corp. own Bakrie Kasei, the largest PTA producer in Indonesia with a total capacity of 640,000 tons per year. (PT Bakrie Brothers sold its 20 percent share in the company to its former partners in late 2000) Bakrie Kasei's first PTA production unit commenced operation in 1994 and the second unit in 1996. Amoco-Mitsui PTA Indonesia, a joint venture of Amoco Chemical (50 percent), now incorporated into BP, Mitsui Petrochemical Industries (45 percent) and Mitsui Company (5 percent), commissioned a PTA factory in Merak, West Java, in February 1998, with an annual production capacity of 420,000 MT per year. PT Polysindo Eka Perkasa of the Texmaco Group started a PTA plant operation in April 1997 with a capacity of 340,000 MT per year. PT Polyprima Karyareksa of the Napan group commenced commercial production in 1997 with an annual capacity of 350,000 tons. Pertamina Plaju Aromatics has an annual capacity of 225,000 tons.

Polypropylene (PP)

Three plants, with a combined production capacity of 605,000 tons per year, produce polypropylene, which is a basic feedstock for plastic packaging material made from propylene. The three are Pertamina's plant in Plaju, South Sumatra (annual production capacity of 45,000 tons), Tri Polyta Indonesia's plant in Cilegon, West Java (annual capacity of 360,000 tons)

and Polytama Propindo, Indramayu, West Java (annual capacity of 180,000 tons). PP's production increased 4 percent to 507,600 tons in 2004 or 84 percent of the country's total capacity.

Ethylene

Chandra Asri Petrochemical Center (CAPC) is the only ethylene producer in Indonesia, with an annual capacity of 550,000 tons. Actual production in 2004 of 408,000 tons (74 percent utilization) is below the country's annual demand of over 900,000 tons. As a result more than half of Ethylene demand is supplied through imports. In 2004, Ethylene import rose to 475,000 tons from 405,000 tons in 2003.

Polyethylene (PE)

Indonesia has a PE production capacity of 750,000 tons from its 2 producers, PT Petrokimia Nusantara Interindo (PENI) and CAPC. Indonesia's first polyethylene plant, PT PENI in Merak, West Java, came on stream in 1993, with an annual production capacity of 250,000 MT. In August 1998, the company completed its expansion project and increased its annual capacity to 450,000 MT. In 1999, CAPC increased the country's total polyethylene production capacity to 750,000 MT.

Total imports of PE were 267,800 tons in 2004, and will likely increase as a result of insufficient production and growing demand. Although national production increased slightly to 445,000 tons, plant utilization is only 59 percent. Current demand for propylene is around 620,000 tons and demand for raw materials of plastics in Indonesia is growing around 8 percent per year.

Methanol

The country produced almost 788,000 tons of methanols in 2004, down 2 percent from 2003's production of 792,000 tons. Prior to 1998, methanol was produced only by Pertamina's Bunyu Refinery, now operated by PT Medco Methanol Bunyu. PT Kaltim Methanol Industry in Bontang, East Kalimantan, came on stream in 1998, and brought Indonesian methanol annual production capacity to 990,000 MT. PT Kaltim Methanol has plans to be a major methanol supplier to Asia. The first shipment of methanol to Japan was in March 1998. PT Kaltim Methanol is 85 percent owned by Japan's Sojitz Corporation (formerly Nissho Iwai Corporation). The plant has an annual production capacity of 660,000 MT.

A gas supply shortage also affected the upstream chemical industry. In June 2005, Medco's methanol plant in Kalimantan temporarily ceased operation as a result of the lack of gas from Medco's Tarakan PSC and Pertamina's Bunyu gas fields.

The Projects

The long-suspended $2.3 billion Trans Pacific Petrochemical Indonesia (TPPI) project in Tuban, East Java resumed construction in June 2004 following approvals from Japanese creditors and a GOI guarantee letter for the project in 2003. The loan facility provides Pertamina with $400 million to fund the remainder of the project.

The Tuban Petrochemical Project is owned by Trans Pacific Petrochemical Indonesia (TPPI), a subsidiary of the Tirtamas Group which transferred majority ownership of the project to the state asset management company PPA

(formerly IBRA) in 1998 after the conglomerate failed to repay $635 million in bank loans. At time of suspension, Tirtamas had already completed 65 percent of construction. PPA and Tirtamas set up a new company, Tuban Petro, to manage the restructuring process. Consequently through Tuban Petro, PPA and Pertamina hold 59.5 percent and 15 percent respectively in the project. Other stakeholders include Siam Cement of Thailand, Sojitz Corporation (formerly Nissho Iwai) and Itochu Corporation.

When completed, the plant will have an annual production capacity of 3.6 million tons per year. The complex will produce aromatic products consisting of paraxylene (500,000 tons), benzene (200,000 tons), and toluene (150,000 tons). It will greatly reduce imports of these products and carry a potential savings of $1 billion per year to country. In addition to the above products, the complex will also produce 1 million tons of naphtha and 1.6 million tons of kerosene and diesel. Presently the project is scheduled to come online in 2006.

Fertilizers

Installed production capacity at Indonesia's 12 fertilizer plants operated by six companies (five state-owned companies and one ASEAN joint venture) is 8.7 million MT of urea and 5.7 million MT of ammonia per year. Fertilizer production in 2003 and 2004 remained stagnant at 5.7 million tons (54 percent total capacity) after falling from 6 million tons in 2002.

Starting in 2004, fertilizer production was affected by the suspension of production at the two large fertilizer plants in Aceh (ASEAN Aceh Fertilizer or AAF and Pupuk Iskandar Muda or PIM I). Designated a strategic commodity, the government directs state-owned fertilizer companies to meet domestic demand first with the remainder be exported. Urea exports fell dramatically to 465,400 tons in 2004 from 946,800 tons in the previous year with main export destinations being Thailand, Australia and Malaysia.

Domestic demand for fertilizer continues to increase at average of 3.0 percent per year. With insufficient production to meet domestic demand, Indonesia imported fertilizer amounting to 2.15 million tons valued at $386 million in 2004, an increase of almost 47 percent from 2003. The largest Indonesian fertilizer import is potassium chloride, which is used as an additive to enhance the performance of other fertilizers. It is mainly used by soybeans, tobacco and tea producers.

The fertilizer industry uses about 194 BSCF of natural gas per year. It purchases gas in U.S. dollars at a government subsidized price ranging from $1 to $3 per mmbtu. Despite Indonesia's abundant supply of natural gas and strong domestic and foreign demand for fertilizer, the industry is struggling for survival. Trouble in obtaining adequate gas supplies for fertilizer plants in Indonesia has became more severe in the past few years, leading ultimately to the shuttering of the production line at AAF in 2004 and its liquidation in August 2005. AAF began production in 1983 and had a capacity of 1.6 million tons per year.

Pupuk Iskandar Muda (PIM) also suspended its operation in September 2005. During 2004 PIM operated at only 28.7 percent of its total capacity and

produced just 336,300 tons of fertilizers. The government plans to resume production at the plant in 2006 by diverting ExxonMobil's Arun gas to the facility. In turn, the government will replace ExxonMobil's gas deficit from Pupuk Kaltim's gas supply from East Kalimantan. Industry experts consider the GOI's plan to be detrimental to the robust development of the natural gas industry. With the halt in production from these two producers, current production comes from PT Pusri, PT Pupuk Kaltim, PT Pupuk Kujang and PT Petrokimia Gresik.